

# ENGINEERING

## Exploration/Orientation Workshop

*A Very Unique Educational and  
FUN Experience*

Ralph Dergance, Program Director  
Shades of Blue  
August 25, 2018

# WORKSHOP SUMMARY

- **NINE Sessions Prepared Especially for 6<sup>th</sup> Through 11<sup>th</sup> Grade Students with a Keen Interest in Pursuing an Engineering Career**
  - Mathematics
  - Mechanical Engineering
  - Electrical Engineering
  - Civil and Structural Engineering
  - Aerospace Engineering and Sciences
  - Earth Sciences
  - Environmental and Weather
  - Biomedical Engineering
  - Hydraulics/Water Management Engineering
  - Computer Science
  - And more!
- **Schedule**
  - Saturdays – August 25, 2018 Through December 1, 2018 with no Sessions Competing With School Breaks, Holidays, Other LHS or LPS Activities
  - 10:00 am to 12:00 Noon Each Day
- **Location**
  - Littleton High School, 199 E. Littleton Blvd., Littleton, CO 80120

# THE FACULTY

## ■ 38 Professional, Experienced Instructors

- Ralph Dergance – Retired Engineer/Executive from Lockheed Martin Space, Shades of Blue Program Director
- Melanie Jollett – Water Resources Engineer, Colorado Springs Utilities
- Dave Lewis - President S. A. Miro, Inc. International Engineering/Construction Firm
- Stef Petryszyn – Board Chair and Director of Shades of Blue, Retired Program Manager & Engineer from Raytheon Corporation
- Lee Hogan – Communications Manager , United Launch Alliance
- Dr. Vanessa Aponte – Corporate Fellows Program Manager & Human Systems Engineer, Lockheed Martin Space Company
- Dr. Penina (Penny )Axelrad-Professor, Department of Aerospace Engineering Sciences at The University of Colorado Boulder
- Willie Daniels – Founder & President of Shades of Blue, UA 777 Captain
- John Holmes –Director of Shades of Blue and The Boeing Company
- David Fisher - Retired Architect and Architectural Engineer
- Cydney Fisher-McLoughlin – Director of Facilities, University of Florida Gainesville

# THE FACULTY (Cont.)

- Sheldon Clark – Aerospace Engineer, Raytheon
- Kerry Grant - Aerospace Engineer, Raytheon
- Jeff Darling – Robotics Expert, Aurora Public Schools
- Martin Allen – Water Management Engineer, US EPA
- Randy Giffin - Water Management Engineer, US EPA
- Bret Lowell – Aerospace Engineer, Raytheon
- Gopal Padmanabhan – Renewable Energy Expert, Renewable Energy Corp.
- Sandra Scanlon – Lighting and Electrical Engineer, Scanlon Szynskie Group
- Lt. Col. Julian “Juice” Clay – Pilot, USAF
- Erin Fisher – Flight Control Systems Engineer, Boom Technologies
- Mike Tuccio – Systems Engineer, Boom Technologies
- Phil LeGoubin-Propulsion Engineering, Boom Technologies
- Luis Rojas-Rodriguez – Systems Engineer, Lockheed Martin Space
- Jim Paradise – Graduate Studies Manager and NASA Ambassador, Lockheed Martin Space
- Christine Edwards-Stewart – Program Systems Engineer, Lockheed Martin Space

# THE FACULTY (Concl.)

- Christine Kryscio – Spacecraft Quality Assurance Manager, Lockheed Martin Space
- Andrew Tsoi, Software Engineer, Lockheed Martin Space
- Mykal Lefevre – Spacecraft Design Engineer, Lockheed Martin Space
- Keith Jovan - Director of Educational Partnerships, DIA
- Lt. Mike Hirsch- Space Weather Prediction Center, Chief of Staff, NOAA
- Jeff Dankenbring – Transportation Engineering
- Jim Barnard - Systems and Propulsion Engineering, Retired
- Kristin Walsh – Director, Colorado + Ivy
- Scott Dergance –Master Division Architect, Toll Brothers Homes
- Chip Bollendonk-Mechanical Engineering, Sycroness
- Stephan Reckie – Engineer, Entrepreneur, GEN Space
- Kendall Hunter-CU Med School, Biomedical Engineering



# FALL 2018 SCHEDULE

<u>DATE</u>	<u>SUBJECT</u>	<u>INSTRUCTOR(S)</u>
August 25	Introduction Launching Learning (Rocket Science)	Dergance ULA Team
September 8	Scientific Method Shades of Blue Overview	Petryszyn Daniels
September 15	EOS Impact on Weather Forecasting	Cochran
September 29	TBD	
October 6	Hydraulic Engineering/Water Mgt.	Jollett
October 13	Tour of Boom Supersonic	The Boom Team
October 27	Biomedical Engineering	Hunter
November 10	User-Centered Mechanical Design	Bollendock
December 1	Mars Rover Races, etc. Closing Remarks	Edwards, Kryscio Dergance

# KEY WEB SITES

- Shades of Blue

- <http://www.ourshadesofblue.org>

- Engineering Workshop Presentations

- <http://www.ourshadesofblue.org/engineering/>

- Schedule of Events

- <http://www.ourshadesofblue.org/calendar/>